FOURTH EDITION.

THE

NEXT NAVAL WAR

BY

CAPT. S. EARDLEY-WILMOT, R.N.



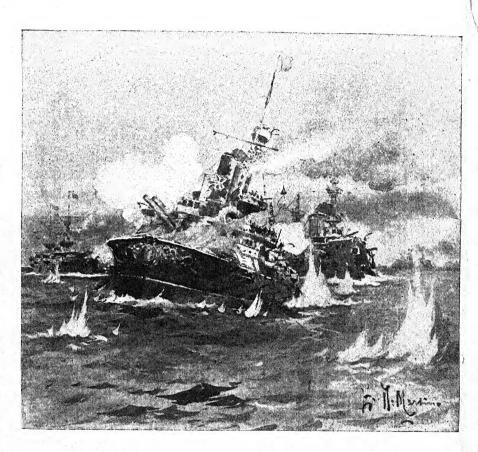
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1894

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"One or two were in a sinking state."—See page 62.

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CAPT. S. EARDLEY-WILMOT, R.N.

WITH AN ILLUSTRATION BY CHEVALIER E. DE MARTINO

LONDON: EDWARD STANFORD

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THE NEXT NAVAL WAR.

1. WAR DECLARED.

THOUGH the announcement in the morning papers of March the 1st, 1895, that the French Ambassador had presented to our Minister of Foreign Affairs the afternoon previously a demand for an early evacuation of Egypt by our troops, came upon the country like a clap of thunder, it was soon evident that for some years France had been secretly but energetically preparing for war. great irritation against England of recent years, due to our prolonged stay in Egypt, had been much increased by the Congo treaty and the gradual extension of our influence north of Uganda. There was no doubt a footing in Khartoum from the south would soon follow, and we should thus obtain a hold upon Egypt, compared with which our present position in its northern portion is unimportant.

The bitter animosity against Germany now was diverted to ourselves. Such questions—openly

said the French papers—will never be satisfactorily settled till France has a navy of which England is afraid. A recent inquiry had discomfited all the critics and demonstrated that the French fleet had never been in such an efficient condition. Moreover, the people were convinced not only that the appliances of modern naval warfare tended to equalise the combatants, while the torpedo would give additional chances to the country which had developed it to the highest degree, but that their past defeats were mainly due to the terrible disorganisation of their Navy which the Revolution of 1789 brought about. This had been lost sight of in England, or rather it had not been put forward in any naval history until an American writer had shown under what disadvantages in this respect the French fought at sea in the old wars. Experienced commanders were ruthlessly dismissed, or fled to escape the guillotine, while their places were taken by inexperienced adherents of the Republic. To what other result than that which followed could such a procedure lead?

To my mind, seeing how much depends upon the traditions and discipline of centuries in the efficiency of a fleet being preserved unbroken, the marvel is not that the English were able to sweep the seas, but that the disorganised Navy of France should have made so gallant a stand under such disadvantageous circumstances. There was much justification, therefore, in assuming that this inequality being removed by a united Republic, the fleets would meet once more with nothing specially to favour either side.

From the close of the Franco-German war, when it was evident that a fleet to perform efficient service must be not only strong in numbers but ready to act at short notice, great labour had been bestowed, and no expense spared, in France to gradually build up a naval force which in some respects could not be surpassed even in this country. With the special gift of organisation and talent for mechanical invention for which France has always been famous, the establishments she created for the manufacture of warlike material, and the extended experiments on which every step was based, gave her great advantages in the marvellous development of ordnance which had been going on for thirty years. In this country, having starved experimental work and given the cold shoulder to inventors, we were content to adopt our neighbours' designs, and plod on just ten years behind them in this most important branch.

The same with armour. While the rest of the world had seen that steel must replace iron, we had long adhered to the latter for some fanciful reason that, though it let the projectiles into the ship more easily, it did not crack to the same extent as the harder material. It was not recognised that if a plate kept out six shells and then fell into the sea in fragments it had done more

useful work than by allowing them to pass through and remaining attached to the vessel.

The special preparations in France had begun some seven years previously, when a thorough overhaul of the dockyards had been undertaken; old stores and machinery had been removed, the plant in all respects improved, and many old officials replaced by others with modern ideas. the same time a change of policy in the distribution of the fleet took place. Formerly Brest had been the principal naval port, in which a large portion of the fleet was usually located; but gradually, as ships were completed here and at Cherbourg, they were sent to Toulon. This passed unnoticed at first, until England woke up to find that in the Mediterranean there was a force equal to that which she maintained in those waters and in the Channel combined: while France had a squadron in the north that, being always in commission, had a great advantage over any reserve which only comes together once a year.

It must not be supposed that this could be achieved with a fleet numerically smaller than our own, and other points remain as well guarded. We had been beguiled into retaining a number of slow vessels on foreign stations by observing that France had followed a like policy, and hence under such a condition we were not at a disadvantage. But our rival pursued this system as a blind, for arrangements had been made that at a given time

these ancient craft were to be laid up in their colonial ports, and their crews and armament transferred to the best vessels of the mercantile marine. These had been carefully prepared for this purpose during construction, so that their equipment as cruisers could be completed in twenty-four hours, while, as the officers and crews had all under the Maritime Inscription served in the Navy, they readily fell into the positions assigned to them under the new régime. These vessels would then be ready to swoop down upon the small craft of England still retained abroad for what had been vaguely termed the police of the seas; they would next make a determined attack on our commerce, while their speed enabled them to run from the few swift cruisers we had sent to distant stations.

The assertion which had often been made in this country that the newest steamers of the Messagerie Maritime carried guns below during their peaceful voyages was so far incorrect, and had probably arisen from observing these special preparations. It was obvious that such vessels could not be transformed in mid-Atlantic, but must seek a port, and would require a war crew. Under these circumstances no benefit would arise from carrying the guns as lumber in the hold.

Though it was hoped that a few auxiliary cruisers of this nature would be able to effect considerable damage before being brought to bay, there was no intention of leaving them unsupported. It had

been remarked that all the newest unarmoured war ships of France had been kept in the home ports. But the intention was, on the outbreak of war, to despatch them in squadrons to various points where they would find isolated British vessels which their superior force would enable them to overcome, and thus taking the enemy in detail, soon diminish the numerical superiority on which we had counted. There were several advantages in this idea. The ships had all the resources of the home dockyards to remedy defects and keep them in the most efficient condition; whereas it had often been found that English vessels when first commissioned, and at once sent abroad, spent several months on arrival under repairs for what should have been ascertained before leaving their Then the French vessels were able to leave at the earliest moment for an unknown destination and without trace of the route taken. Having a clear start, they must arrive before reinforcements could reach the point aimed at. Had they been distributed abroad previously, this country would -as she always has done-have strengthened her foreign station squadrons to a degree consistent with a superiority over any possible enemy.

All the writings of those who have commented upon the failure of France in the past to acquire naval supremacy, attribute it to the pursuit of a false policy in first directing her aim upon territorial attack and ignoring the opposing fleet; or imposing upon her naval commanders a defensive attitude towards it as the best means of ensuring success for the expedition. Though here and there a temporary gain may follow, a naval war thus pursued must in the end be disastrous.

Jurien de la Gravière had proclaimed, "There is but one way to avoid the danger of being half conquered before the first battle; that way is, to be both active and provident, to keep line-of-battle ships ready to be manned at the first signal, and to threaten the enemy's coasts before he can blockade ours."

Lissa showed that any other objective than the enemy's fleet at the first onset is hazardous in the extreme. Careful students of cause and effect, the French had now determined to be first in the field, and strike heavy blows before our forces could be concentrated for the same purpose. To this end all their recent organisation had been directed. The newest ships not in commission so nearly approached this condition, that all they required to take the sea were a small portion of the crew, and certain stores that could be shipped in a few The principal elements for immediate service were on the spot. The first and second in command had been in the ships from the beginning, and such was the discipline maintained, that both could not be absent night or day together. No delay could ensue in completing the ships with officers or men. In France every naval officer is

attached to one of the naval ports, and makes that his headquarters unless he has special leave to reside elsewhere. Hence he is ready to embark at There is no half-pay. a moment's notice. afloat he is in barracks, though given regular leave on return from foreign service. All this sounds simple and natural, but it is noticed as distinct from our system, in which officers on promotion are given a pittance, and retire to a cottage and grow cabbages until their turn comes for a command. All is then new to them, and the first year is spent in digesting the latest regulations and becoming familiar with the various advances gunnery and tactics, &c., have made in the interval.

As regards the men, no time could have been better for obtaining an ample supply. Outside the force actually serving in the Navy, the best seamen of France are perhaps those who go every year to the Newfoundland and Iceland fisheries in great numbers. They mostly belong to the Maritime Inscription, and have served their time in the To get them at any moment, they must be called out before going off for the summer fishing. In the Crimean war transports had to be sent out to Newfoundland and Iceland to bring numbers of these men back to man the fleet. Hence the delay which led to our fleet being first in the Baltic. At all the French ports there is an agent of the Maritime Inscription who keeps an account of every sailor, and knows where to put his hand on

These agents had been secretly warned. them. The notices calling out the reserves up to the age of thirty-five had been posted on the afternoon of February 28th. The next day 10,000 men were on their way by train for the chief naval port of their district. Long existent arrangements with the railway companies enabled this to be carried out without delay or difficulty. There was some resistance to the decree among certain of the coast fishermen, who endeavoured to avoid service by putting to sea in their fishing boats, but these were in nearly all cases pursued and arrested. As a choice between prison and service, they readily chose the latter.

The Maritime Prefects at all the naval ports had also been warned previously of what was contemplated. Without any unusual stir they saw that the various stores for every ship in the reserve were provided and ready for shipment, while lighters were placed in convenient positions for this service. When, therefore, the single word "mobilise" was telegraphed from the Ministry of Marine in Paris at 8 a.m. the next morning to the ports, there was no confusion. The trains had been coming in during the night with the reserve seamen, who on arrival were marched into barracks. told off to their ships, given their kit and breakfast, so that when the order arrived they were at once marched on board. By 2 o'clock in the afternoon the port officials could report to the

Ministry of Marine that the different squadrons were ready for sea.

What in the meantime was going on in England? The Prime Minister having been informed of the demand, a Cabinet Council was at once called, and orders were sent for the Commander-in-Chief and Senior Naval Lord of the Admiralty to attend. Though the French note only required an assurance that steps would be taken within twenty-four hours to remove the English troops in Egypt, it was felt that the situation was very serious. But by the time the Cabinet had assembled it was too late in the day to set the dockyards in motion. Moreover, the incident had occurred at an unfortunate time for us. The Channel fleet had just returned from their winter's sojourn on the coast of Spain; the ships were refitting, while half the officers and crew were on leave. A week earlier, and the squadron could have proceeded to Gibraltar from Arosa Bay instead of coming home, and thus strengthened our Mediterranean fleet. Doubtless this fact had influenced the date at which the demand had been put forward. However, orders were at once sent to recall officers and men, and to complete the ships for service with all despatch. each of the Port Admirals a telegram was sent: "Prepare to mobilise the fleet at six o'clock tomorrow morning." Then a portion of the Cabinet proceeded to discuss the answer that should be given to the French Ambassador, while the repre-

sentatives of the two services sketched the operations to be adopted in case the result should be unfavourable. This led to some curious revelations. Each had a plan of campaign cut and dried for such an eventuality, but it had been prepared without reference to the other, and its success depended on a preliminary warning of at least some days. To the Army had been confided the task of defending all the ports and our outlying possessions, but it had never struck its officials to inquire what the nature of the attack might be coming over sea, and it was assumed that an expedition could be as easily equipped for distant service as for a dash at points within easy range. Having been told they could expect no assistance from the fleet, that is to say, ships could not be permanently retained in any locality to await an attack which might never come, the military scheme of defence provided for resisting a large fleet and the landing of a numerous body of troops. Such a view entailed small armies in each place for garrisons, so that in the words of a former Secretary of State for War, "The garrisoning of the ports and coaling stations would require the services of no less than 125,000 men, in addition to local levies in certain foreign stations." These had not been provided, and now the Admiralty were suddenly asked to provide transport and convoy for the troops required to complete the garrisons to full strength. It required some argument to show that the operation, besides being one of extreme danger at such a time, could not be undertaken, in view of other services which the fleet would be required to perform.

The Navy, on the other hand, seeing the danger to which we were exposed from the French holding certain commanding positions on two of our trade routes, had counted upon despatching immediately on the outbreak of war a combined force to occupy But they had omitted to work this out with the military authorities, and now found that the organisation of the Army did not readily admit of the prompt embarkation of such a force. Carried away by some desire to emulate Continental Powers, we had directed all our efforts to form three army corps of about 35,000 men each, and now could be seen the result of much hard work. The Cabinet was informed with triumph that the 1st Army Corps could be embarked in a week's time. But the Admiralty did not want a Crimean expedition; their modest demands were only for 5000 men, complete in all respects, and this could not be done. It would dislocate the whole military organisation. Why not take the marines? was all very well, but this body was incorporated as an integral part of the Navy, to assist in manning the ships, and those not afloat in time of peace were a portion of the reserve we counted upon when additional ships were manned. true they had been utilised on many occasions

other than for this purpose. If a portion of Ireland was turbulent the Admiralty were applied to for one or more companies of marines. In small wars they had been found an excellent force for doing the rough preliminary work and clearing the way for those who reaped the chief honour and glory. But this would be—if war ensued—a struggle in which the Navy could not spare a man. How had we lost sight of the fact that the best military organisation for this country is one which enables it to despatch expeditions with promptitude to any part of the world? Not only one, but several. In 1809 we had forces operating in Walcheren, Sicily and Portugal. After an unseemly wrangle, it was agreed that four regiments of the line and a battalion of marines should be allotted for the duty.

By this time the Prime Minister and his colleagues had agreed upon an answer to the French demand. It was to the effect that while they recognised their pledge to withdraw the troops maintained in Egypt as soon as the condition of the country warranted such a step—and it should be redeemed the moment this condition had been reached—this country could not consistently with its dignity afford the assurance that any directions would be given within the limit of time stated in the French note. While all felt that no other answer could be given, it seemed certain that war between the two countries must inevitably follow.

It being now considerably past midnight the Cabinet broke up, having arranged to meet again at ten to receive the answer of the French Government, while the naval and military forces were to be at once put on a war footing.

The next day there was an official communication in all the papers in the terms already stated, but adding that Her Majesty's Government trusted, in view of the assurance given, no rupture of our friendly relations with France would ensue. This however, was not to be realised, for after considerable working of the wires between London and Paris, the French Ambassador handed in a note at the Foreign Office at 2 P.M., which stated that, failing to procure any satisfactory reply to the temperate demand of his Government, he had been instructed to inform the representatives of Her Majesty that the chiefs of the naval and military forces of the Republic had been directed to carry out reprisals upon the dominions and subjects of Her Majesty.

At 3 P.M. the same day the French fleet steamed out of Toulon.

II. STATE OF EUROPE.

Pausing now before the first act of the great drama is performed, we may briefly review the state of Europe at this time, and see what chances of assistance there were for either from the other Powers.

The Triple Alliance was practically at an end. Italy had found the strain too heavy to bear, and been obliged to make considerable reductions in her Army and Navy. A large section of the Italian nation saw that a mistaken policy had been adopted. The weak point of Italy was her immense extent of coast line. Consequently the danger was from the sea, should she find herself opposed to a nation with ports in close proximity and possessing a powerful Navy. Her comparatively short land frontier was easily guarded by an army based on a series of strong positions, and such a defensive policy did not necessitate the maintenance of a large land force. On the other hand, being nearly surrounded with water and possessing several islands of great importance and extent, it was obvious that Italy's chief requirement was a Navy in proportion. This had been recognised to a great extent, and large sums spent in the creation of a fleet: but with an ambition that had not measured its strength, a few vessels of immense size had been

constructed, whereas a greater number of moderate dimensions would have more effectually secured the sea approaches. In calculating the chances of injury from all directions it was now seen that the Central Powers could afford Italy no help in the direction she most needed it. The triple fleets were unequal to France alone, while if the latter had an ally with only a moderate amount of sea power, the position was so much worse. The triple armies were no doubt formidable, but then, as I have said, Italy did not need this support in a purely defensive attitude. As for any help from this country, why should this be counted upon? Our foreign policy was notoriously unstable and opposed to any binding engagement. We wisely preserved an attitude of neutrality, and Italy now regretted she had not done the same. As a neutral she would have had more claim on our sympathy, and be more likely to obtain our active support if attacked by either In a fit of pique Italy embraced a cause in which she had greatest risks. Our fantastic acquisition of Cyprus gave France a free hand in Tunis, and Italy henceforth became her enemy. gained nothing, for an island without a harbour is like a dockyard without a dock, but it fulfilled a long-cherished dream of Lord Beaconsfield, and France became, in Bizerta, the owner of perhaps the finest harbour in the world. Though naturally aggrieved at such a place not falling to her lot,

Italy had been wiser to have kept on friendly terms with France, and not launched forth into the expenditure her later alliance entailed. Such were the arguments held forth by an influential portion of the Italian press during the summer and autumn of 1894. They were skilfully supported by similar reasoning in the French journals, and by the end of the year Italy had detached herself from the Triple Alliance.

The other countries were not disposed to move at present. They were too busy watching each other on land to participate in what was intended to be a trial of strength at sea. Russia did not want to cripple herself in the Baltic, where her ironclad construction had long been designed to meet the new fleet of Germany. But she was ready to join France should Austria or Germany inter-As, however, the struggle did not affect the immense armies in the east and west of Europe. those countries saw little reason to assist us. deed Germany stood to gain in any event. Many had been declaring for the last few years that events seemed to point to our decline in commerce and the rise of Germany. Her trading ships were now found in every sea, in some places more numerous than our own. Wherever her sons emigrated they prospered. Had not other nations dominated the ocean as we, and then dropped out of the race? Who could have foreseen the substitution of Holland for Spain, and then the transfer

of the world's carrying trade to this country. Might we not in turn give place to Germany? England at war meant more trade to neutrals; England defeated, its commerce gone, perhaps never to return. England victorious would, on the other hand, weaken France, and this also was not unpleasing to Germany. The great military power saw no advantage in assisting a competitor in trade.

Thus once more the two great rivals at sea since the Dutch ceased to contest, were to strive for the supremacy of the ocean. To us events during the past eighty years of naval peace—for the Crimean war did not tax our resources in this respect—had made the retention of naval supremacy a matter of life and death. To France, self-supporting, with an insignificant ocean commerce, and colonies which were of little strength to the mother country, defeat at sea would not materially impair her position. What could have been more complete than her loss of sea power in 1815? Yet in 1840 she was ready to challenge the mistress of the seas, and her best naval officers declared the fleet was in matériel and personnel equal to our own. Victory, on the other hand, would enable her to pay off an old score and regain her hold upon countries which she considered hers by right. It would also give an impetus to that colonial expansion now ardently desired. Meanwhile her strength on land would be unimpaired even if an expedition or two were undertaken.

III. ORGANISATION FOR WAR.

Such was the general position when on the afternoon of March 1st the two countries were about to test those preparations which by organisation and manœuvres they had striven to bring to And how had each considered the perfection. many points that a condition of war entails? provision of an armed force, whether for use at sea or on land, is—or should be—a separate function to that of handling it when required. If a high official attempts to administer all the petty details in the creation and maintenance of fleets or armies. he will have no time to study the strategical and tactical problems in their use. This is the duty of a general staff: to say first, what force is required, and then prepare plans of campaign adapted to every eventuality. The administrative portion of the department is charged with the duty of seeing that these demands are complied with. This system has been brought to great perfection in Continental armies, and it necessarily has had considerable influence in imparting like methods to their fleets. It was a wise policy which placed two generals in succession at the head of the German Navy, for they gave it an organisation for war, equal, if not superior, to that of states which have maintained a fleet for centuries. France has for

years had a general naval staff whose work is clearly defined in preparation for war. But it is also supplemented by a superior Naval Council, composed of the most eminent naval officers, who meet periodically in Paris and report to the Minister of Marine on all important subjects connected with the development of attack and defence at sea. this Council are the Commanders-in-Chief of the Mediterranean and northern squadrons, the Préfets Maritimes of the five ports, and other officers of experience. Created only a few years ago, its formation excited no attention abroad, but it is evident that such a board is well qualified to work out strategical problems, and give valuable assistance to the minister at the head of a large service. This Council had been sitting as usual for two months, and when the members departed to their other duties a complete plan of action had been drawn up. Not the least of the attaching advantages of this Council was, that it comprised people who were to carry out the operations, or on whom depended for the most part a successful result. They were ready to act, and when the order came, first to mobilise and then to proceed in execution of previous orders, no further inquiries were necessary.

What was the procedure on this side of the Channel? The Board of Admiralty as an administrative body had a good record in the past. It had brought us successfully through severe con-

flicts, and in the war with Russia of 1854 had compared favourably with the system by which our small army is organised. But the Crimean war was more a question of transport, and in this particular work we are unrivalled. In fact the British Navy had triumphed in spite of, rather than owing to, the system. There had, however, been some tendency to go with the times. In face of considerable opposition on the part, not only of those who resisted every increase of the naval element at head-quarters, but even of admirals who had never troubled to consider that a condition of war was essentially different to that of peace, a special department had been organised to deal with intelligence of foreign navies, and provide means for rapidly equipping our own force. small it had done good work, but as our system provided that the representative of the Navy in the House of Commons often was a man unversed in war ships, though he may have successfully directed a small line of merchant ships or other commercial undertaking, the new department spent most of its time in preparing returns on every conceivable subject to enable this gentleman to reply to the continual questions with which those in the House possessing a little more knowledge were able to ply him. It became the fashion for everybody to fancy he was qualified to make elaborate comparisons between our fleet and that of other nations. This led to continual

reference to the Intelligence Department, which one day was directed to draw up a statement showing our squadrons everywhere stronger than any two others combined, while shortly afterwards a new Government, desirous of support to a demand for increased Navy estimates, had a form prepared which clearly demonstrated that we had now sunk to a second-rate naval power.

At last the chief of the department suggested that to save time he should be given instructions beforehand what it was wanted to prove, as anything in this direction was possible with a slight modification in the classification of battle-ships. In the meantime the Board were engaged—and it had occupied their time for some months-upon a detail of uniform. Each branch of the service now carried on its arm the emblem of its speciality. One had crossed torpedoes. The seaman gunner had guns in an impossible position. A shovel decorated the stoker, and the carpenter was known by his The point now was, how should domestics be distinguished. A section of the Board advocated with warmth a crossed knife and fork on the left arm above the elbow. Another member, a great advocate for teetotalism and the abolition of rum, was equally firm in desiring the emblem should be a cup and saucer. They were now discussing this point, and had decided to refer it to the First Lord, when a message from him turned their thoughts into another channel. It informed them of the French demand, and directed the orders to be sent to the ports I mentioned at the outset, and desired them to consider what were the operations that should be undertaken.

Seeing what had been accomplished every summer for some years past in mobilising a large fleet for the annual manœuvres, and observing that with a few exceptions and breakdowns we were able to practically double our squadron in home waters within forty-eight hours, it was hoped on this occasion there would be no difficulty in producing a like result. But it was soon seen that this was no true criterion of our preparedness, for on those occasions, with the date well known, this evolution had been the special care of the dockyards for months previously. The manœuvres over, vessels that had participated in them were put aside, reports of officers in command as to urgent requirements were unheeded, while all energies were directed towards pushing on the new constructions, so as to show how rapidly a modern battle-ship could be produced. Though by dint of considerable pressure on the War Office the ammunition for all vessels in the reserve had been provided, it was not kept in a convenient locality and had to be transported in lighters. A sufficient number of these with due warning could be hired, and it had been a novel sight in years previously to see a dozen ships taking in their powder alongside the dockyard simultaneously. But to send such an order without

notice and at another time of the year, was to find those responsible for this important part of naval equipment quite unprepared. Indeed, when the port admirals on receipt of the order to mobilise sent urgent demands for powder and projectiles, the ordnance store officers declared themselves unable to move until proper requisitions from headquarters had been received, and arrangements could be made for transport. Then the anomalous condition which places the most essential portion of a ship's fighting capacity under military control was apparent. True both services use powder, and in theory a common store is economical, but why should not the Navy supply boots on the same reasoning to soldiers and sailors? Anyhow, here was the first cause of delay, and the red tape barrier was only overcome by the energetic action of one admiral, who at once sent an officer of his staff to assume command of the depôt, while another was despatched to hire all the lighters in the port. He remembered the procedure of Sir Edmund Lyons when he had to make arrangements for the landing in the Crimea, and the shock caused in the official mind by his prompt dealings at Constantinople with owners of necessary stores. But a little irregularity on these occasions wonderfully facilitates the movement of a fleet or army. It was found so now, for in a few hours twenty lighters had been found, loaded and despatched to the vessels fitting out.

Then a new difficulty arose. Orders had been received to fill up the crews of the coastguard ships and commission every vessel in the reserve. There was now found a considerable dearth of men. The coastguard, a most efficient force of about 4000 men, could only be drawn upon to a small extent, because to them was entrusted the important duty of working the signal stations which we had established all round the coast of the United Kingdom. This was an invaluable piece of organisation, because it enabled the appearance of any vessel to be flashed to all parts. efficiency depended, however, upon the men at these places being able, not only to distinguish between a merchant ship and a man-of-war, and to detect the latter if disguised, but to know by appearance the nationality of an approaching The experience of the coastguard men cruiser. made them adepts at recognising their own vessels, and being furnished with photographs of foreign war vessels they could identify any hostile cruiser. Clearly their places could not be taken by landsmen, as had been proposed, or even seafaring people without experience. Hence the coastguard could not be sent affoat in any numbers.

The Naval Reserve was called out, but no one knew where they were coming from, or in what numbers. As they mostly belonged to the principal steamers, the owners regarded with dismay their vessels depleted of men. The slow steamers and sailing ships, which were likely to lay up in war, carried few, if any, reserve men. It was seen that we had been trusting to a broken reed in our system for manning a large fleet at prompt notice. A week had elapsed before even 5000 of these men had reached the ports, and having never served in a man-of-war they had not only to be instructed in the most elementary routine duties, but it was a week before they could find their way about the

ships to which they were sent.

We have, however, a force which can always be relied upon. When Louis Philippe instituted many years ago a parliamentary inquiry to compare the French and English Navies, before which the most distinguished officers were examined, their general opinion was that in personnel and matériel the Navy of their country was equal to, if not superior, to that of England. But they said "that country has a force which no other possesses. unique and of inestimable value to the Navy. is the marines." When again, fifty years ago, we fitted out a large experimental squadron, and seamen could not be obtained, marines completed the crews, and no more efficient squadron had been seen afloat since the old wars. We now found once more in this body the only reliable reserve we possessed. In six hours from the order 6000 marines were embarked and settled down to their places as if they had never been on shore. remark in passing that as a result of the war the

marines became more firmly knitted to the Navy. Certain excrescences were removed. They were placed entirely under the admirals at the different ports, and their principal training was in gunnery afloat rather than in taking part in field days under the general of the district. Their uniform was assimilated more to their connection with the sea, and blue became its predominant colour. officers lost all desire to be considered a part of the land forces, and took up their new duties afloat with enthusiasm. The only difference between them and the naval executive was that they represented a later entry into the service.

It may be imagined what excitement prevailed throughout the country when it was known that war had actually been declared. I shall not attempt to depict the scene at the War Office and Admiralty. It was simply chaos. Has it not been stated of Moltke that on a similar occasion he was found reading a novel, and on surprise being expressed at his being so engaged he said, "The great work of preparation now ceases; we have to see the result of our labours?" There was no such spirit in Pall Mall or at Whitehall. Many things that had been suggested as necessary, but put off, had now to be taken up. One department besieged the other with inquiries, demands and requisitions. In addition, telegrams from the coast came pouring The military, having been entrusted with the safety of our harbours, had provided an elaborate

system of defence by submarine mines, which necessitated the greatest precaution in going in It had been wittily remarked there would be in time of war more risk to our vessels entering their own harbours than in approaching those of the enemy. This was now realised, for on intimation from the War Office that the ports were to be placed in a state of defence, mines were laid in all the channels, and a dockyard tug coming into Portsmouth Harbour, from a short cruise to warn friendly vessels of the condition of affairs, had first been diverted from her course by the persistent glare of a search light, and then ran against a loaded mine, which resulted in her being blown up This led to some angry discussion with all hands. between the admiral and general. The latter said that being responsible for the safety of the port he must exercise his own discretion as to when and where mines were placed. Vessels should wait outside until they could be conducted in by a corps of pilots he was organising. It was suggested that such a delay might be of value to an enterprising enemy, and the admiral stated with emphasis that the despatch of reinforcements to the fleet with promptitude depended upon his having full control of the immediate waters of the port.

There was no alternative but to refer the matter to headquarters, and the attempt was made to define the responsibility of each service. This, on going into the matter thoroughly, was found to be

The First Lord plainly declared that hopeless. unless the admiral was supported he must ask to be relieved of his office, and the Prime Minister, seeing the urgency of the case, directed that the supreme control should be vested in the naval au-This was nowhere received with greater satisfaction than at the ports, for in the meantime the generals in command had arrived at a sense of the anomalous position in which they had been Men had been allotted to complete the placed. manning of the forts, but they had not the slightest idea of what constituted friends or foes. They could be with difficulty restrained from firing at everything that approached. At the request of the officers in command a naval party was sent to each fort who could pronounce upon the character of every craft that came near. It was found that forts, lights and submarine mines could be efficiently worked as a single organisation, but under dual control it must result in chaos and probably disaster. Barely a year before the French Minister of War had pointed this out in the Chamber, and every other nation had adopted the policy we now found essential. But such a change cannot be perfected in a few hours, and the enemy was not blind to experience of the past, which had always found us unready in the early stages of a conflict. He knew that give us time and all these defects would disappear. Everything depended on striking immediate blows. These were about to fall.

IV. TORPEDO ATTACKS.

Among the various plans discussed by the great Council at Paris was the sudden attack by flotillas of torpedo boats at different points. Originally adopted as a weapon of coast defence and to keep off a blockading squadron, later developments of this craft had proved that within a radius of 100 miles they could assume the offensive—given sufficient hours of darkness to cover the distance, and they had every chance of making their appearance without warning. This view had led France to acquire a great number of these boats. In the north alone there were sixty capable of such service, and harbours of refuge had been arranged along the coast to which they could return if pressed in pursuit. These refuges were up small rivers or estuaries, of which the defence was their inaccessibility to larger craft. Their existence was well known in England, and a number of swift catchers had been built to watch these places and destroy the enemy's torpedo boats on coming in or going out of them. Only a few, however, were now ready.

Cherbourg, the headquarters of the northern flotilla, is 110 miles from Plymouth and 70 from Portsmouth. It was determined to despatch a squadron of ten boats to each of these ports and

endeavour to destroy any vessels that might be in the roads or up the harbour. They had been in commission for some time and all on board were thoroughly trained. The plan was to leave Cherbourg at sundown, proceed along the coast to prevent being observed by our cruisers or vedettes, and then dash across the Channel. A commander was in charge of each expedition, on board one of the new 150-feet boats which had attained to a speed of 28 knots. Most of the boats carried two torpedo tubes, one of which could be pointed on either side or both on the same side.

Not all the boats were so provided. In each squadron two carried machine guns only, their mission being to engage the attention of any guard boats encountered, while the others were to push on without stopping until the main object of the operations had been effected. The plan of the Portsmouth attack was for the squadron to make for St. Alban's Head, then turn to the eastward and proceed at moderate speed towards the Needles. When some way off that end of the Isle of Wight a couple of boats were to be detached and make a feint as of forcing that entrance, while the remainder went on to the other approach. It was calculated that all attention being directed to the eastern channel the main assault had a good chance of passing the forts and getting up the harbour. There was another reason for this arrangement, which was a possibility of coming

across some of the Channel fleet making their way to Portland.

But this did not happen, for those ships ready had left in the afternoon, while the remainder were to sail next morning. It was assumed that any ships lying at Spithead would have their nets out, but vessels alongside the dockyard would be exposed to torpedo attack. No hitch occurred during There was a strong westerly the journey across. wind blowing, but the boats easily maintained a speed of 15 knots. Much attention had been paid to the stoking so as to avoid sparks issuing from the funnel, which has always been the first indication of the approach of a torpedo boat at night. No lights were showing except a small one in the stern of each boat. By an ingenious arrangement this light was provided with a shutter, worked by an electro-magnetic apparatus from the conning tower, by which the light was reduced when the leading boat altered speed, and obscured when her engines stopped. Some warning of this sort was necessary, as the flotilla maintained close order, the bow of each boat close to the stern of the next ahead; but it was found in this position a collision was easily avoided. By closely observing the leader any alteration of course was detected without signalling being required.

About midnight the two boats were detached to make their way to the Needles, and an hour later heavy firing was heard in that direction. The

other boats were then passing Dunnose and had not yet been discovered. Pushing on, they gave St. Helen's Roads a wide berth, hoping to pass the Horse fort undetected. But the wind had now dropped and the Rattlesnake, a torpedo catcher patrolling between Selsea Bill and the Isle of Wight caught sight of the advancing flotilla. Turning her search light on the black specks in the distance the officer in command divined their The preconcerted signal of two rockets in succession, followed by a gun, was instantly given, and in a few minutes the attention of the defenders, which had been drawn to the western entrance, was concentrated on stopping at all hazards this new attack. The critical moment for the boats had arrived, but there was no hesitation on the part of those in command. A single order "full speed," and guided by the lights on Southsea Beach, they made straight for the entrance of the harbour.

Though it could not be expected that such a daring operation as penetrating through the defences of our principal naval arsenal could be accomplished without great risk, more than one cause favoured its success. The tide was then nearly full flood, so there was no fear of boats grounding on the shoals that at low water impede free navigation. A light rain which, while it did not obscure the land, placed those in the forts at some disadvantage, was a meteorological condition

on the side of the attack. The range and power of the electric light is so diminished by fog or mist as to make it practically useless at such a time. This is due to its deficiency of red rays, which are not absorbed by aqueous vapour to the same extent as the other components of white light. The smoke of guns is even more embarrassing, while the difficulty of hitting a small object moving at a speed of 20 knots had not hitherto been appreciated.

Two causes only could be relied upon to stop torpedo boats in an attack of this nature. One is a fixed obstacle, as a boom which cannot be jumped. and the other is to have a sufficient number of small craft with speed and power to grapple the boats before their object is reached. The former can only be used in certain places, and there would be difficulty in applying it to the entrance of Portsmouth Harbour, where the current is so swift. But there is nothing to prevent an effective patrol by guard boats. Unfortunately, hitherto little had been done in this direction. The military had seen the necessity as a protection to their mines, but had not the means for carrying it out, while the Navy, not having control of the local defence, did not consider it their province. Alive now to the risk of having no mobile defence, a few steam launches had been hastily equipped, and with one or two of the new catchers had been sent to patrol outside Spithead. Warned by the signals of the

Rattlesnake, these now made for the advancing boats.

But the French commander had calculated on such a contingency as likely to assist him in pass-His plan was, if discovered, to get ing the forts. mixed up with the defenders, so that any fire directed on himself would be equally detrimental to the other side and lead to its being stopped. This actually occurred, for though at first a heavy cannonade was opened it soon ceased, as through the drizzling rain it was observed that all were coming in together too absorbed in their mutual endeavours to pay any attention to what was going on elsewhere. Had there been a dozen catchers like the Hornet not a single boat would have escaped. She, coming from the direction of Ryde drawn there by the firing at the Needles—at a speed of 26 knots, steered for the flotilla. Her commander decided to ram, as she carried no torpedo tube in the stem, which had been specially strengthened for the purpose. The evolution is not easy, but the number of antagonists assisted his movements. Without a check he crashed into the engine-room compartment of the last torpedo boat. was a momentary quiver, and shouts were heard from the unfortunate mechanics, then as the Hornet backed out the water poured into the aperture and the boat almost immediately sank. Another boat had been disabled in her machinery by a 6-pounder shell, and, being surrounded, had to surrender.



The *Havock*, which had also arrived on the scene, was attacked by the two French guard boats. had been unable to ram, having a bow torpedo tube, but did good execution with her machine guns. The four remaining boats had meanwhile shaken off their assailants and had passed the Spit Fort without serious injury. Following the example of their leader, they had diverged as little as possible from their course. They now entered the harbour at short intervals. Though several ships were alongside the dockyard, the Inflexible was lying at her buoy ready to leave the next day. She offered an excellent mark, and as the leading boat passed there was a plunge, and a torpedo charged with 200 lbs. of gun cotton sped on its way of destruction From the explosion that followed there was no doubt of its accuracy or effect. No modification of internal construction could withstand such a blow. In five minutes the ship settled on to the mud, with only the superstructure showing above water.

Further on, the dockyard jetties showed almost an unbroken line of ships that up to midnight had been taking in their stores. Some had not yet emptied the powder lighters that had only been placed alongside a few hours previously. Passing rapidly by these in succession, at a distance of not more than 100 yards, the boats discharged their torpedoes on that side with terrible effect. The Repulse, just commissioned, suffered the same fate as the Inflexible. A powder lighter alongside a second class cruiser was struck, and the charge of

the torpedo ignited the powder, causing a terrific explosion, the destruction of the cruiser, and immense damage to the dockyard as well as the town. Such a scene is indescribable. The air was full of portions of wood and iron that had been impelled upwards and hurled in all directions. A calamity like this creates an awe which imposes silence and inaction on all for a brief period. Then the torpedo boats, having arrived at the head of the harbour, turned to make the best of their way out. It was a forlorn hope, for by this time their pursuers had arrived at the mouth of the harbour. The only chance was to keep a straight course and trust to luck. It was a case of each one for himself.

The tide had just begun to ebb, and the boats came down the stream at a tremendous pace. they approached the entrance it seemed impossible to get clear of all the craft that had converged on this spot. The leading boat carried the commander of the expedition; he had taken the helm, as all depended on careful steering. There was a gap at Blockhouse Point, and for this he made. his intention, a launch steered across to intercept him. If she grappled he would soon be surrounded. There was no alternative; a slight touch of the helm, and the sharp stem of the torpedo boat cut clean through the quarter of the other, and she passed on without a check. The second torpedo boat had kept in his leader's wake, and also got through, but the remaining two, which made for the other side, were not so fortunate; one had its

propeller damaged by floating wreckage, while the other had struck a buoy, which injured the stem and impeded its progress. They were grappled and taken. It only remains to say that the leader and his companion managed, after several hair-breadth escapes, to get away clear, and reached Cherbourg in the forenoon, where they were received with great enthusiasm.

Some hours later there arrived at intervals four boats of the Plymouth expedition. This had steered for the Start, and about five miles south of Prawl Point met the second division of the Channel squadron, which had left Plymouth late in the evening for Portland. The boats were discovered by a cruiser that had been placed two miles in advance of the main body. She at once fired guns, and promptly engaged the enemy. eventuality had been provided for by the officer in command of the expedition. The boats were in two divisions, five in each line. Any scout or cruiser was to be attacked by the two guard boats, while the remainder, opening out, would endeavour to pass down on each side of the squadron. ships consisted of the Empress of India, Resolution, Revenge, Narcissus, Bellona and Speedwell. four battleships were in line ahead, while the Bellona was scouting in advance and the Speedwell on the starboard beam. The latter, seeing the firing, at once went full speed to the spot. movement put the boats in some disorder, and gave

the line of ships time to have everything in readiness to meet the attack. At the first intimation of the presence of an enemy the admiral quickened his speed, and as the boats, now reduced to six, swept past, they were greeted with a tremendous fire from the machine and quick-firing guns. The leading boats suffered most, and were disabled before they had reached a position to discharge their torpedoes. Those following, swerving outwards to avoid their companions, did not come under such a heavy fire, but two of them had their torpedo tubes so injured by the hail of shot that their contents stuck fast. The last two boats, partly enveloped in smoke, each managed to get off a torpedo at the third ship. This was the Revenge.

There are two causes which, in firing torpedoes from the side of a torpedo boat against a ship in motion, may produce a miss. One is, that the torpedo is deflected on entering the water to an angle dependent on the speed of the boat; the other is, that the object, if moving rapidly, may have passed before the torpedo reaches it. An allowance for each has to be made. The speed of the boat being known, experiment easily demonstrates the necessary allowance in this case; but the speed may be altered at the last moment, when a readjustment of the torpedo is impossible. Similarly, the rate of the object has to be assumed, and may alter, or be estimated incorrectly. Partly owing to one cause and partly to the other, of

the two torpedoes actually fired on this occasion. one passed astern, while the other struck the rudder of the Revenge. In the early days of this weapon, when the explosive carried by it was of comparatively small amount, the effect would not have been so serious. But the detonation of 200 lbs. of gun cotton, which modern torpedoes convey-equal, perhaps, in effect to 1000 lbs. of gunpowder—is irresistible. There was a tremendous report, and the stern of the ship was hurled into the air. Though all the water-tight doors had been closed previous to the approach of the boats, the shock to the after part of the ship was so great that all the bulkheads were seriously strained. An immense mass of water entered the ship, and she was observed to settle down deeply by the stern.

Fortunately the loss of life was not great, as few were at the after end except those working the machine guns on deck. Some of these were picked up uninjured by the boats of the squadron, which were quickly on the spot, having been precipitated into the water by the blow, though not immediately over the explosion. But a great many were wounded, especially in the engine room, where the concussion was severely felt. Of course the ship was perfectly disabled, as both propellers were gone, though the steam pumps were intact, and kept the water down to a great extent. That she did not sink was a marvel, and entirely due to the discipline

maintained, even at such a terrible moment. No panic ensued. Stations for a collision had been frequently practised, and now at the bugle call every one went to his allotted duty. All the pumps were connected, and boats got in readiness in case the ship had to be abandoned. For this there was no immediate necessity, as the water-tight doors had been closed previous to the attack. Had the explosion taken place a few feet further forward no precautions could have availed.

All depended now on the bulkheads withstanding the pressure of water and preventing it extending to the engine room. They leaked considerably, but did not give way. The entry of water was checked by putting over outside all the mats and canvas, where they got sucked into the fissures. This action had been most useful in the case of the *Howe* when lifted off the rocks at Ferrol. As the stern—or rather the after part—was much depressed, while the bow was correspondingly raised, so that the whole of the ram was out of water, every weight that could possibly be moved was transported forward.

All sign of further attack having ceased, the admiral came on board. With the captain and chief engineer he made an examination of the injuries as far as they could be observed, and decided to remove the crew to the *Narcissus*, which should then tow the injured battleship back to Plymouth. Only a small party was left on board

the injured ship, as there was great risk of her foundering in case it came on to blow hard. She, however, arrived in safety about noon, while the squadron went on to Portland.

There was great consternation throughout the country when these events became known. had been subjected to extreme humiliation. Notwithstanding the millions spent on coast defence, we were not able to prevent a few torpedo boats entering our principal stronghold and destroying ships alongside our very dockyards. Elaborate preparations existed to encounter a hostile fleet, but no provision to meet this form of attack. Again, while all experienced officers had declared that a squadron at sea should be attended by numerous scouts to bring such assailants to bay before getting within striking distance of the main body, this obvious necessity had been neglected, with the result just related.

True, out of twenty torpedo boats fourteen had succumbed—for the two sent to the Needles, pressing the attack too close, had been disabled and captured—but our fleet had been reduced by three battleships and a cruiser; a deficiency which could not be made good within the probable limits of a war, and was out of all proportion to the loss sustained by the enemy.

There was a tremendous outcry against the War Office and Admiralty, and an excited mob could be with difficulty restrained from acts of violence.





Many demanded that a popular sailor should be given the direction of affairs. But it was not the time to swop horses, and calmer counsels prevailed. Such an attitude was necessary, for the country was about to sustain a far greater misfortune.

V. DEFEAT OF OUR MEDITERRANEAN SQUADRON.

As I have already stated, the French fleet left Toulon at 3 P.M. on March 1st. The conditions under which it now took the sea were very different from those that prevailed at the beginning of the The centre of interest had shifted to the century. eastward. It had passed from the Atlantic to the Mediterranean. We can hardly appreciate now the eagerness with which the control of the West Indian Islands was competed for in former years, and the influence they exercised on naval strategy. Similarly the altered conditions of the North American continent have diverted the interest attached to former struggles for dominion there and, except in a minor degree relating to commerce, would not attract great attention until other points had been secured. Thus all the great naval battles of the past took place in the Atlantic, whether among the islands in the western portion or on

this side. Since then the eastern hemisphere has proved more attractive. Our position in India, and its dependence on the sea for support from the mother country, must chiefly affect naval strategy of to-day.

A French writer has said, "C'est aux Indes qu'il faut frapper l'Angleterre." The shortening of the route by a ditch 90 miles long across the Isthmus of Suez has also added a new phase to the question. Some think this neighbourhood will see the next great struggle for naval supremacy.

When the veteran constructor of the canal was received in the French Academy, M. Renan, addressing him, said, "One Bosphorus has sufficed till now to give trouble enough to the world. You have created another more important than the first. In case of maritime war it would be the point of supreme interest; the point for the occupation of which the whole globe would make a rush. You have thus fixed the spot for the great battles of the future."

Whether it was to be in this immediate locality or at the opposite extremity of the Mediterranean would depend upon tactical rather than strategical considerations. It might have been desired as of old to effect a junction between the Brest and Toulon fleets; but this was no longer requisite owing to the policy followed of concentrating previous to war the force required for immediate action. Had it been scattered in several ports, each

was liable to destruction in detail or to suffer blockade. By developing the resources of Toulon, and collecting a fleet there considerably superior to any in Mediterranean waters, it could not—in the early stages of a war at least—be reduced to inactivity. Of course I am aware that this measure had been to a large extent influenced by the growth of the Italian Navy, and the chances of hostilities with the Triple Alliance. This, however, was only one of many threads in a scheme which had for its chief ambition a dominion of the sea.

But the greatest change of all in the strategical aspect of the Mediterranean, as regards the position of France and England, is the substitution of the former in holding the large extent of coast formerly under the authority of the Deys of Algiers and When the French sent an expedition to Tunis. Algiers in 1830, it was not, probably, foreseen by the other Powers that this would lead to a domination of the coast to a point within easy range of Malta. Along this coast are a series of harbours either naturally good or made so artificially. Such harbours afford valuable bases either for offensive or defensive purposes. The most ignorant in naval warfare cannot fail to see what risks in war commerce runs in passing this long sea coast, unless each port is masked or the craft it harbours destroyed. A squadron leaving Toulon need not fear loss of communication and supplies with such a base as Algiers open-moreover, any force going

from Malta to Gibraltar must pass within close distance.

It was to Algiers the French fleet was now steering with a view to intercept the English squadron, which must be reinforced from England before it could take the offensive.

The formidable nature of the French position in the Mediterranean had been observed and pointed out frequently in England for a considerable period previously. Sir Geoffrey Hornby had plainly said: "I don't see how we can possibly hold the Mediterranean with our present force," and the Admiralty had been urged to strengthen it. But the requirements of a modern fleet differ materially from those of former times, and render it more dependent on a dockyard. We have only one place in the Mediterranean with the necessary plant, and Malta is only just capable of supplying the wants of a limited number of ironclads. Gibraltar has no dock, and its naval yard is incapable of coping with big repairs. Hence we could only maintain a much larger fleet in this sea by sending some of the ships home periodically, a course to which all naval tradition was opposed. A few additional cruisers had been sent out, but they did not materially strengthen the squadron in the most important element of sea power.

It had, however, been considered that on an emergency the Channel squadron could reinforce that in the Mediterranean in a few days, our home

waters being guarded by the coastguard ships. When, therefore, the First Lord of the Admiralty was informed of the French note, a cypher telegram was despatched to the admiral at Malta, informing him of the position of affairs, and stating the Channel fleet would join him at Gibraltar as soon as possible.

This reached him at 8 P.M. on February 28th, and orders were at once given to prepare for sea.

Fortunately the whole of the squadron was present, except the *Edgar*, at Alexandria, and some of the small ships cruising at the eastern end of the station. The second division had lately returned from the Levant, and all were now preparing for the summer cruise. One or two of the ships had portions of their machinery disconnected, but these were replaced in a few hours, and at 4 A.M. the next morning the squadron left Malta for the westward.

A somewhat northerly course was steered, to avoid the coast of Tunis and prevent information of their movements reaching the enemy. It was desirable to push on, to get past the narrow water between Cape Bon and the western end of Sicily during daylight, as there were known to be torpedo boats at Bizerta.

Though war had not been declared, the previous telegram had been such as to prevent little doubt it might ensue at any moment. The squadron therefore proceeded at a speed of 12 knots. As a

matter of fact, it was sighted about noon by two torpedo boats from Bizerta that had been despatched to ascertain whether the squadron had left Malta. They were then off Pantellaria, and at once returned to Tunis with the news, where it was transmitted to France and Algiers. These boats were seen by the leading English ships, and their actions looked ominous, so the admiral sent the Æolus on to Cagliari for intelligence, to meet him 50 miles due south of that port. The appointed rendezvous was reached at 5 o'clock the next morning, where the cruiser was found waiting.

The captain went on board the flagship, and the news he had to impart was of a serious nature. War had been declared the previous afternoon and the French fleet had left Toulon in great strength. Its destination was unknown, but it was believed to be bound for Malta. A signal to the fleet made the information general, and all the captains were ordered to confer with the admiral.

The consultation did not take long. All were of the same opinion, that there was no alternative but to push on to Gibraltar. In less than an hour the squadron had resumed its course.

If the French were steering for Malta they must still be a considerable distance north, and there was ample time to get past them. On the other hand, should the Toulon fleet make straight for Gibraltar, they had a shorter distance to go by 300 miles than the English squadron. But the latter had started half-a-day earlier, during which 150 miles had been run, and it was hoped the balance might be picked up by superior speed. This was now increased to 14 knots. But as I have said, the French destination was Algiers and the squadrons were converging upon each other.

We may therefore now give a detailed list of the two forces.

The French squadron comprised the following:

BATTLE-SHIPS.

1st Division.	2nd Division.	3rd Division.
Formidable (Flag).	Marceau (Flag).	Courbet (Flag).
Jauréguiberry.	Neptune.	Caiman.
Amiral Baudin.	Hoche.	Indomptable.
" Duperré.	Magenta.	Terrible.
Brennus.	Dévastation.	Bouvines.

These three divisions were so arranged that each contained ships of similar type and approximate power. Manœuvring is much facilitated where this is carried out, as the revolutions of the engines and the arc of turning circle being nearly uniform, changes of direction and formation can be accomplished without every captain having to study the idiosyncrasies of his next ahead and astern. The first division was the most powerful, as the one to come first into action, and composed of the finest ships in the French Navy. Vice-admiral G. was in supreme command, and flew his flag in the Formidable. His early career had been a distinguished one and he was considered the ablest officer in the

service. Two rear-admirals in the *Marceau* and *Courbet* respectively, led the second and third divisions. They had been specially promoted from the captains' list, and had had much experience in squadron work.

There were twelve cruisers organised as scouts as follows:

1st sub-Division. Cécille (Flag). Cosmao.	2nd sub-Division. Tage. Troude.	3rd sub-Division. Dupuy de Lôme. Lalande.
4th sub-Division. Alger. Forbin.	5th sub-Division. Isly. Davoust.	6th sub-Division. Jean Bart. Suchet.

A rear-admiral was in command of this light squadron. Experience in manœuvres had shown the necessity of this, especially when two opposing fleets come actually in contact, as then the cruisers must take care not to impede movements, and the supreme chief has all his attention directed to handling the battle-ships.

It will be seen the cruisers are in six sub-divisions, each consisting of two vessels. The smaller acted as a satellite and as an intermediate communication between the big cruiser, when scouting, and the squadron. In addition, there was a torpedo flotilla composed of the Wattignies, Léger and Lévrier torpedo catchers, and eight sea-going torpedo boats.

The English squadron consisted of ten battle-

ships, the *Polyphemus* and nine cruisers, as follows:

BATTLE-SHIPS.

1st Division.

Ramillies (Flag).

Hood.

Camperdown.

Anson.

Howe.

2nd Division.

Trafalgar (Flag).

Sanspareil.

Rodney.

Collingwood.

Polyphemus.

The squadron was very unequal in strength, because it included the five Admiral class which had been sent out to the Mediterranean as more suited to that sea than the rough waters of the Channel. Their low freeboard forward makes them very uncomfortable in bad weather, as every aperture on deck has to be hermetically sealed to keep the water from getting below. They have good speed in smooth water, and are powerfully armed, but a large area of the hull is most imperfectly protected.

It was a great point with our old wooden walls that they were equally at home in any sea, and weathered the heaviest storms while maintaining their stations in the Bay of Biscay. Few of our modern constructions are capable of keeping the sea for any length of time. Indeed, this is seldom done; they go from port to port, and the amount of time spent in harbour is much in excess of that under way.

The following cruisers accompanied the squadron:

Hawke.Æolus.Surprise.Amphion.Barham.Sandfly,Arethusa.Scout.Skipjack.Spartan.Fearless.

Though, as may be seen, this squadron was numerically inferior to that of the French, and only contained four ships of 12,000 tons and upwards, it was thoroughly well organised and in splendid order. The chief command was held by Admiral Sir Charles T——, G.C.B., an officer of great experience and energy. The Ramillies carried his flag. Rear-admiral L—— was his second in command in the Trafalgar. He had gained a great reputation as a captain, and was now flying his flag for the first time.

Many problems which had been exercising men's minds for half a century were now within measurable distance of solution. The effect of steam upon tactics; for, with the exception of Lissa, no great action under this mode of propulsion had yet taken place. The fight between Tegethoff and Persano had only touched the fringe of the question. Then how far we were justified in mainly trusting to a few guns of great size. Would the improved training of seamen and the superior precision of the weapon give an adequate return under the different conditions of battle and practice? Were we right in carrying such masses of armour? Or could it be limited to keeping out the most destructive shell? What was the influence

of submarine attack? Of the ram we had some experience in peace and war. Of its terrible effectiveness when successfully applied there could be no doubt. Would it be brought into use early or late in an action? What was to be the record of the torpedo? All nations had been devoting great attention to this weapon, but at the same time a vein of contempt for its powers seemed to influence naval construction. Though equally destructive to large as well as small ships--for though we may pile up armour to protect them from shot and shell, the hull under water remains vulnerablewe had not hesitated in producing vessels costing a million sterling in which protection against this form of attack is infinitesimal. In fact, it cannot be done. As was declared long ago by an eminent naval architect, when only small torpedoes were used, "It might be possible to put some armour on the bottom of ships, but then it would only be necessary to increase the charges of the torpedoes, and the armour we had applied would become vulnerable. It is idle to attempt to form the bottom of a ship strong enough to resist a fair blow from a powerful torpedo." Prophetic words, spoken eighteen years ago, for in the interval we have passed from charges of 40 to 200 lbs. of gun cotton. We can only lessen the danger by spreading the risks over a greater number of ships of reduced size, but this alternative we have not yet accepted.

There were many who declared the next sea fight would not be won by an extra inch of armour, or an additional foot in the velocity of a A thousand tons more or less will count little in the scale when pitted against the personal Success would be to the side which element. handled best the weapons provided. There was nothing to indicate how this would go. Each country had striven to give its personnel a thorough training in all that tends to excellence at sea. We knew what our own Navy had done in China, New Zealand, the Crimea, Egypt and those numerous small wars in which we had been engaged. neighbours had similar experiences—Admiral Farragut had witnessed the French operations against Mexico in 1838, and recorded his impressions of their fleet. Writing to Commodore Barron at the time, he had said: "The English and ourselves may affect to despise the French by sea, but depend upon it they are in science far ahead of us both, and when England next meets France upon the ocean she will find a different enemy from that of the last war."

Since then their progress has been continuous, and a feeling of confidence prevailed throughout the service, indicating that no endeavour would be wanting to ensure success.

Such were the general conditions when, on the 3rd of March, in the early morning, the forces of the two Powers in the Mediterranean once more

met in battle. In fact the early part of the action began before it was light, and the two fleets came upon each other rather unexpectedly. The English admiral would, if possible, have avoided a conflict, but he had not time, and his cruisers being hard pressed by superior numbers, he could only have done so by a sacrifice he was unwilling to entertain. He therefore determined to accept battle. The best accounts of naval actions are those derived from private sources. A man often in a letter throws a light upon incidents concerning which official despatches are silent. Naval history would be more interesting reading if it included matter of this nature. As a rule, also, we seldom read anything except what is compiled by our own countrymen, and compiled with a partiality it is most difficult to overcome. Actuated by such ideas, I have obtained, and am permitted to publish, the following account of this battle from a lieutenant of the Formidable to a friend in the Ministry of Marine at Paris: -

"Formidable, Algiers, March 4th.

[&]quot;Mon cher Louis,

[&]quot;You will ere this reaches you have seen Duplessis, whom the chief sent with his despatch in the *Troude*, announcing our glorious victory of yesterday. It cost us dearly, for many beloved comrades gave their lives in the gallant struggle. Victor, who shared your work in the État-Major,

fell by my side whilst bringing me a message from the admiral. He had only a short time before mentioned you, and said what would you not have given to have been with us. I can only give you a brief account of the action, as we are all hard at work getting ready for another voyage. As you know, we left Toulon on Tuesday afternoon. It was a scene never to be forgotten, the crowds who came to bid us farewell, and how they cheered. We wanted to do the same, but the admiral said, 'No, wait till our return,' meaning it would depend on how we had acquitted ourselves. You know how impassive he is, but what there is beneath that calm exterior. All felt he was a chief worthy of France.

"We had no idea where we were going till all the officers were sent for and told our destination. What an inspiration! I suppose you knew all about it. But we were too busy to think much even of those in the dear country. There were all the stores to get below, and spare apparatus to stow away. People think that ships are always ready for action, but it is very different when war comes in earnest.

"When we left a mistral was blowing, and there was a good deal of sea outside Cape Sicié. Some of the ships seemed to take in a good deal of water, but the torpedo boats did not suffer. We only took those of largest size, which are capital sea boats.

"Our departure had been so prompt, we did not

think the English would leave till the next day, but they must have sailed before us, for the Wattignies, which had been sent on to Algiers for information, came back with the news that two torpedo boats from Bizerta had seen the English squadron off Sicily on the morning of the 1st. We therefore hastened on. It was about 3 A.M. yesterday that we first knew they were at hand. The Cécille was scouting five miles ahead, when she signalled a fleet in sight. The sound of guns told us she had engaged. The other cruisers were then directed to support her, upon which the enemy drew off. At first we thought he meant to elude us, but when day broke the whole of his fleet were in full sight bearing down upon us. Two of his cruisers had, it appeared, been disabled by the Dupuy de Lôme, whose melinite shells proved very destructive, while her own cuirass kept out all the rapid fire projectiles. Worthy ship of such a name! The disabled cruisers had been taken in tow, and this hampered the movements of the enemy. When I came on deck, aroused from a short sleep by the call to action, the sight was magnificent. In the dim light of the early morning we could see on the starboard bow the massive ironclads in compact order. They were in a curious formation, the flagship leading and the other vessels ranged on her and each other's quarter, making an isosceles triangle. Thus the squadron had the shape of a wedge, in which each ship's ram and bow fire were

clear of the next ahead. Great practice must be necessary to maintain this order, but for the charge it is a good arrangement.

"How often, dear friend, have we argued over this matter! You think pelotons the best attack formation, while I have always said line ahead is the only feasible method. In peace evolutions it is very well to have an officer at the compass, another with the distance finder, and the commandant with nothing else to think of but to keep station. But in action it is very different. that disappears, and this last terrible experience convinces me. Follow your leader, and the eye judges if you are too close, or behind station. The nearest approach to how you navigate is best on the day of battle. Thus I was glad to see we were in two divisions line ahead. There was some sea, as it had been blowing fresh during the night. Our ships did not move much, but one or two of the enemy were rolling a good deal.

"Just then we altered course, as we were steering across his bows, and the English opened fire at about 4000 yards. Several shot passed over us, but I could not see if any ships were hit, as orders came to commence, and I was getting on the sights of my big infant forward. We were swinging round at the time, which diverted the aim, but the shot was not seen to strike the water, so it may have hit its mark. This was the first shot from our side, and it would form a fine subject for our great painter. Then the firing became fast and

furious. As we passed each other at about 2000 vards an enormous shell struck us amidships. created great havoc in the battery and quite disabled the centre 37 cm. gun. The port division was then nearest to the enemy and suffered The Marceau was much knocked about. severely. Her projecting barbettes on the side had been put out of action by the destruction of the ammunition hoists, and she lost a number of men early in the action. Several of the other ships had also many injuries. But the enemy was as bad, if not worse. Some of the English ships carried their guns so low, we occasionally saw their projectiles strike the tops of waves and be deflected into the air. again, I think the rolling of their biggest ships was in our favour. This probably caused the enemy to decide upon closer quarters, for forming into a single line he turned and made straight for us. He must have been going at least 12 knots, but our admiral saw the manœuvre in time. We had changed direction to port and were in two divisions abreast. Turning another 90 degrees we came into our first formation by simply using the rudder. This brought the two admirals as sternmost ships. In another minute we had enveloped the enemy. The din was terrific, and the smoke so thick from the heavy guns that we could only see the top of the military mast of the next ahead. That guided us. It is impossible, my dear Louis, to describe this portion of the battle. Ships swerved on both sides. as steering gear or machinery broke down. When

we had passed clear, several on both sides were totally disabled, and one or two were in a sinking state. The foremost ships had sustained the hardest blows, while we in the rear were not struck many times.

"But I have not time to tell you how the struggle continued, the despatch will give all details of losses and how the English admiral got clear with five ironclads when he saw the victory was practically in our hands.

"How splendidly they fought, each helping one another. You remember in China how we used to remark on the camaraderie of the English captains. They dined together, met on shore for a walk, and joked how one had got his royal yards across before the other. We agreed there was not the same in our Navy. Our capitaines de vaisseaux, striving for promotion to contre-amiral by selection, view each other askance, while theirs, being by seniority, have no such thoughts.

"We return to Toulon to-morrow, taking back the injured ships and to get ready for further service, so au revoir.

"From your devoted "Paul Brachet.

"P.S.—It was a misfortune not having the torpedo boats with us when the enemy appeared. As you know, they had been directed the day before to make the best of their way to Algiers owing to the weather, and only rejoined us after

the battle. But I have always been doubtful whether in a fleet action they might not be as dangerous to friends as foes."

This letter, written hurriedly, no doubt, only gives a general description of the first great battle between modern fleets. Many details are wanting as to the individual action of ships, which it would take too long to fill in. The broad fact remains that for lack of sufficient force we had suffered a reverse in the Mediterranean, and for some time at least could not control that sea. It had been a question of numbers and not size of individual The smaller vessels had not suffered ships. especially, and as the greater proportion of the shot struck at an angle, a comparatively moderate thickness of armour either caused them to glance off or to burst harmlessly outside. The truth of the old adage that the best protection against the enemy's fire is a well-directed fire from your own guns, was fully borne out. It was the weight of metal discharged in a given time, not massive bolts at intervals, that was most effective.*

At a future time I will go into this action in greater detail, with the lessons derived from it, but at present am only concerned in showing the general result of trusting to chance and past success in maintaining our position at sea.

^{*} The defective protection of the Admiral class was, however, very apparent. A complete belt is now considered essential, though not more than 4 inches thick at the ends.—S. E. W.

The English admiral, sore at heart when he saw how his once proud squadron was reduced, had reluctantly come to the conclusion that his duty was not to prolong the contest. He therefore drew off with the remainder and continued on his way to Gibraltar. It was a question whether he should not endeavour to reach Malta, where repairs could have been made good and the injured ships docked. But the distance was greater, and it was most important to get reinforcements. He therefore decided to carry out his original instructions. Avoiding the north coast of Africa so as to be clear of hostile torpedo boats, and obliged to steam at a moderate speed, the squadron reached Gibraltar without further mishap on the evening of the 5th. Nothing had occurred there, and the next morning the Channel Fleet arrived in the Bay.

But it was now too late to retrieve the disaster, for though the new arrivals gave a considerable accession of strength, nearly all the ships lately in action required considerable repairs, and there were absolutely no resources at Gibraltar for grappling with injuries of magnitude. There could be no question of entering the Mediterranean again, for the Governor had received information that the French fleet had returned to Toulon, and that several ironclads brought forward from the reserve had been placed in commission.

A large expedition was preparing, the destination of which was believed to be Malta or Egypt.

There seemed no alternative but to send the damaged ships home, but as the French Channel squadron was reported in Brest, it was considered advisable that all should return together. They accordingly left the next day, and a week later anchored in Plymouth Sound.

VI. EFFECT OF THE DEFEAT.

ONCE more, therefore, we had been obliged to withdraw our fleet from the Mediterranean. effect was much the same as of old. No steamers from this country cleared for that sea when these events became known. Those that entered the Straits were warned at Gibraltar, and either remained there or put back. There was no attempt to block the Suez Canal on the part of France, because she wanted to keep this way open to her eastern possessions. Our commerce coming home suffered terribly from hostile cruisers, which for some time carried out their operations undisturbed. The bogey of torpedo boats playing great havoc with harmless merchant ships disappeared once and for all. It had been assumed they would range up alongside and consign all to destruction without scruple. It had been lost sight of that a vessel's nationality must first be ascertained, and if her

destruction is decided upon, provision made for the crew, and passengers if carried. Privateers were often inconvenienced by the number of prisoners they took out of a prize, but how would a torpedo boat fare if so encumbered? If the captured vessel's own boats are utilised and the passengers put adrift in them, humanity demands the stowage of food and water. Is this likely to be adopted at any distance from land? Would not the whole civilised world cry out at such deeds? Might they not even range themselves against the transgressor? On this occasion the inconveniences I have mentioned soon led torpedo boats to leave commerce alone. They had work more worthy of their steel.

It is impossible to describe the sensation which these events caused throughout the land. Though for many years representatives of the people of both political parties had loudly proclaimed the Navy should be outside all partisan strife (but continued to vote steadily with their side when its efficiency was questioned), all question of allegiance to an individual in face of such a disaster now disappeared. A vote of censure on the Government for not putting plainly before the country our naval requirements, was carried by an overwhelming majority. It was a lame defence which urged fear of wounding foreign susceptibilities. Why, we had never uttered a murmur when other countries had in twenty years spent a sum nearly equal to our

national debt upon their armies, which were to them the security our Navy is to us! We never questioned their right to put the whole population under arms. How could they in turn object to our maintaining a Navy—upon which our existence depends—equal, if necessary, to that of the world combined? In fact such a necessity had been recognised by a ruler of the country we were now fighting against. Napoleon III. said once to some peevish complaints we made as to his building ironclads, "Let each build what he considers the right number; you ought to have twice as many as I, for they are your principal protection."

If we wished to maintain thirty ironclads in the Mediterranean, why should any other question but that of our own interests be considered?

By such cogent arguments the excuses of the administration were pulverised, and it fell ignominiously. But no political change could avert dire It was only natural that a state of war should dislocate that immense traffic over sea on which we depend daily for so much food. Only the year before, half a million tons of meat-independent of live stock—had been received from abroad. Just stop the importation of wheat for a month, or reduce it by half, as now actually occurred, and note the effect of a dear loaf. Successful war means much misery and great expenditure. unsuccessful struggle brings horrors untold, and these we soon began to experience. We had to

pass through a fiery ordeal of trouble before the good qualities of the nation asserted themselves, and the bulk of the population rallied to the side of law and order.

Our disasters were not limited to home waters. An expedition from Brest, which left the day after war was declared, captured Dominica and St. Lucia in the West Indies before we had time to strengthen our squadron in that part.

The Mediterranean being now abandoned by the British flag, and it being evident that for a month or two we could not appear there in force, an army was embarked at Marseilles and landing in Aboukir Bay under cover of the fleet, had no difficulty in overcoming the resistance of the English force of occupation, hampered as it was by the hardly concealed hostility of the native officials.

In less than a month our boasted naval supremacy was in jeopardy, and Russia now seized the opportunity to demand an unrestricted right of way from the Black Sea to the Mediterranean. Turkey protested, but could get no promise of support from the other Powers. An unfortunate mistake in one of the forts of the Bosphorus firing upon a Russian vessel proceeding to Constantinople with despatches, gave the pretext needed.

Disclaiming all intention of deposing the Sultan from his capital, but asserting that the channel must be rendered secure, Russia embarked a force of 20,000 troops at Sebastopol and Odessa. For

vears the scheme had been maturing and practised on a small scale. It now only needed for success that the intervening sea should be secure. there could be no doubt. The Russian fleet in the Black Sea had been made vastly superior to the long neglected Navy of Turkey. Escorted by five powerful ironclads and numerous torpedo boats, the Russian expedition left the Crimea for the Bosphorus. It had often been asserted that the next war between Russia and Turkey would see a coup de main on Constantinople by an expedition landed at Kilios Bay, which is on the same side of the Bosphorus, and a few miles north of the entrance. But on this occasion a different policy was adopted A foothold on the other side would be equally advantageous, without having such an alarming effect upon Europe. The great dream of Russia is to extend over the rich and fertile country of Asia Minor. Thus the last war saw her add a sensible slice, including Kars and Batoum, to her dominions. With possession of the greater portion of Asiatic Turkey, it would be a comparative matter of indifference as to who was the actual occupant of Constantinople. That would come in due course. Indeed, Constantinople is practically fed from Asia Minor. Russia was thus able to give Austria an assurance that she had no design upon that city.

In thirty-six hours the force arrived off Kili Point, which is about 20 miles from the Asiatic side

of the mouth of the Bosphorus. The landing began at seven the next morning and was effected with little opposition. A small force of Turks that had been hurriedly collected to oppose the disembarkation, was repulsed by the advance guard, and by ten that night the whole of the army and the stores were on shore. This operation was in fact a complete surprise, for the Turks had a large army in readiness on the opposite side and were without the means of rapidly transferring it across the water.

Leaving a strongly entrenched camp at the point of embarkation, a Russian flying column, 5000 strong, marched rapidly towards the Bosphorus, and occupied without difficulty the forts on that side commanding the entrance. In the meantime reinforcements kept arriving from Batoum and other Russian ports.

These rapid measures practically put Turkey at her mercy, and Austria grew alarmed. An appeal to Germany was promptly responded to, and the growing feeling in Italy that assistance should be offered to England, added to the probability that the whole of Europe would soon be in a blaze.

The difference between good and bad organisation was then apparent. To mobilise an army on the Continent may precipitate a conflict, and affects the entire nation to such an extent that it is only adopted as a last resort. A fleet may be equipped,

or an existing one strengthened, without disturbing to any great degree the national life. It need not also awaken suspicion.

Among the many surprises which this war brought was the promptitude with which a German fleet was assembled at Kiel; and the way in which it afterwards carried out certain operations in the Baltic was a matter of general comment. An English officer, who was invited by the Emperor to accompany him on his inspection of the squadron, was much struck with the high state of discipline maintained and the thorough manner in which everything was done. There was no playing at soldiers or sailors. A high standard was exacted from all, and if any failed to come up to it, he was at once put aside. As the Emperor laughingly said to his guest, "Germany can't afford to have indifferent officers."

Whilst these events were taking place, our immense resources and innate aptitude for naval warfare had begun to bear fruit. By dint of great exertions and utilising all the great private establishments of the country, we were collecting a fleet such as the world had never seen. The nation responded nobly to the call. Money and men were forthcoming to any extent, but ironclads could not be produced in a few months. We regretted now that so little had been done to keep the older ones ready for service, as the appearance

of a second squadron of twenty ships early in the war would have turned the scale.

While thus about to make a great effort, the three central Powers interposed with an offer to negotiate, plainly intimating that they were not disposed to allow the struggle to continue, and remain as spectators. An armistice of three months was agreed to, which led to peace being arranged by a congress at Vienna.

We consented to place Egypt under international control, and some other minor points were conceded. The Russian frontier in Asia was extended to Sinope, while the fortifications of the Dardanelles were demolished, and the waterway neutralised. It was henceforth to be free to all shipping.

After all, these were trivial matters compared with what we had suffered in one month from our want of organisation and preparation. A battle may be lost without disgrace, and though we had to mourn many gallant sailors, it is what war inevitably brings. It was galling to the national pride, which, if it believed in anything, believed in the invincibility of the British Navy, to find that we had no monopoly of able officers and seamen. But the feeling produced by such thoughts disappears in the determination to improve. What could not be mended was the check our boasted commerce had received. At one time our carrying trade was almost entirely stopped, the rates of insurance having increased so alarmingly. Many

vessels were sold at almost a nominal figure, and after the war it was curious to see the number of British built ships running under another flag. It has been calculated that this brief period of war cost us more than if we had added ten millions to the naval estimates every year since the Crimean war.

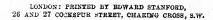
The struggle left us sensibly poorer, but chastened in spirit. A great change came over the nation. We now recognise the highest duty of man is not the accumulation of wealth, but the defence of country. Riches are no longer the principal qualification for the upper chamber of our legislature. Though trade is encouraged, the nobility has a higher aim than city offices and public companies. Above all, we have seriously considered how the Empire should be defended, and the land and sea forces organised for our special requirements. The Army underwent great changes. A broad line separates the force maintained for home defence and that for foreign service. All places that could be approached by sea were placed under naval control, and one authority has entire charge of the defences. person is now detailed to administer a great service as a reward for party allegiance, and the next great qualification for which, formerly, appeared to be entire ignorance of the duties. It had been assumed that any knowledge of details was unnecessary, and moreover tended to obscure the broad

view which a man unembarrassed with any such knowledge was likely to take upon the larger questions submitted to him.

Great progress has been made in the organisation of our fleet for war, and if we don't muster periodically a hundred ships for a royal inspection, we can at least despatch a fifth of the number at any time within a few hours, actually ready for service. To ensure this, each port is ordered to mobilise the reserve at different and uncertain periods of the Instant dismissal of the responsible official follows any breakdown or delay. A commission on manning the Navy ascertained that the present system of reserves, though well adapted for the time it was instituted, is quite unsuited for the present conditions. Thirty years ago, little was required to enable a seafaring man to perform all the duties on board a man-of-war. must be well trained, and this is effected by entering men in the Navy for a shortened term of service, and passing them on to the mercantile marine, with an immense gain to both services.

Finally the lesson, though bitter, has been a useful one, for we now should not shrink from any scrutiny into our organisation for war. We have paid the penalty for unreadiness, and one of the comforts we have, in reflecting over the great sea fight, independent of the many gallant actions it produced, is that the Empire is more firmly knit together than ever. We not only feel secure at

home, but know that at the next trumpet call thousands of hands across the sea will be ready to aid the old country against any future attempt such as I have here endeavoured to describe.



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